



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/779,553	02/09/2001	Bengt Lindoff	040071-266	6158

21839 7590 04/02/2004

BURNS DOANE SWECKER & MATHIS L L P  
POST OFFICE BOX 1404  
ALEXANDRIA, VA 22313-1404

EXAMINER

HA, DAC V

ART UNIT	PAPER NUMBER
----------	--------------

2634

5

DATE MAILED: 04/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/779,553

Applicant(s)

LINDOFF ET AL.

Examiner

Dac V. Ha

Art Unit

2634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 09 February 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,8-14 and 21-28 is/are rejected.
- 7) ☒ Claim(s) 2-7 and 15-19 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 2-4.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 1, 8-14, 21-28** are rejected under 35 U.S.C. 103(a) as being unpatentable over Dam (US 6,223,040) in view of Skold et al. (US 5,933,768) (hereinafter Skold).

**Regarding claim 1**, Dam teaches the claimed subject matter "receiving the received signal ... co-channel interferer burst" in Figure 2; Col. 5, line 37 to Col. 6, line 11; Col. 10, line 19 to Col. 12, line 15. Dam differs from the claimed invention in that Dam does not teach the claimed subject matter "selecting a detection ... interferer burst". However, in the same field of endeavor, Skold teaches a method for selective detecting the received signal based upon a certain criteria between the desired signal and the interferer (Col. 3, lines 55-67; Col. 11, line 47 to Col. 12, line 32). Dam doesn't teaches a particular method for "selecting a detection procedure based on the time offset", however, Dam explicitly provides a guide line for planning based on at least the "time offset" so as to ensure the accuracy of detecting the desired signal in the presence of co-channel interference. Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to incorporate the teaching

Art Unit: 2634

of selective detecting the desired signal in the presence of the co-channel interference taught by Skold into Dam to further assure correct detection of the desired signal.

**Regarding claim 14**, see claim 1 above.

**Regarding claim 8**, Skold further suggests the teaching of the claimed subject matter "selecting ... desired burst" in Col. 4, lines 42-58; Col. 12, lines 5-32.

**Regarding claim 9**, Dam further teaches the claimed subject matter "wherein ... interferer" in Figure 2; Col. 5, line 61 to Col. 6, line 11.

**Regarding claim 10**, Dam further suggests the teaching of the claimed subject matter "wherein ... arrival" in Figure 2; Col. 5, line 61 to Col. 6, line 11.

**Regarding claim 13**, Dam further teaches the claimed subject matter "detecting ... received signal" in Figure 2. Consequently, the claimed subject matter "selecting ... burst" would have been understood by one skilled in the art.

**Regarding claim 11**, the claimed subject matter "wherein ... correlation" would have been optional to one skilled in the art.

**Regarding claim 12**, the claimed subject matter "detecting ... interferer" would have been obvious to one skilled in art since modulation detection is needed in demodulation process at receiving end.

**Regarding claims 21-25, 28**, see claims 8-13 above, respectively.

**Regarding claim 26**, Dam further teaches the claimed subject matter "wherein ... receiver" in Abstract; Col. 3, lines 58-64.

**Regarding claim 27**, Dam further teaches the claimed subject matter "wherein ... receiver" in Col. 3, lines 25-26.

***Allowable Subject Matter***

3. **Claims 2-7 and 15-19** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Barany et al. (US 6,256,486) disclose a Method And Apparatus For Measuring Co-Channel Interference.

Ariyavisitakul et al. (US 5,222,101) disclose a phase Equalizer For TDMA Portable Radio Systems.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dac V. Ha whose telephone number is 703-306-5536. The examiner can normally be reached on 5/4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on 703-305-4714. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

Art Unit: 2634

you have questions on access to the Private PAIR system, contact the Electronic  
Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Dac V. Ha', with a long horizontal flourish extending to the right.

Dac V. Ha  
Examiner  
Art Unit 2634